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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Matsuo et al

:

Group Art Unit: 1713

Application No. 09/326,691 :

Examiner: Peter D. Mulcahy

Filed: June 7, 1999 :

For: Rubber Composition and Pneumatic tire using said Rubber
Composition

SUPPLEMENTAL DECLARATION UNDER 37 C.F.R. §1.132

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

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TC 1700

Sir:

I, Tomoyasu Nishizaki, do declare and state as follows:

I graduated from Tokyo University with a Master's Degree in
Applied Chemistry in March 1999;

I joined Bridgestone Corporation in April 1999, and since that
time I have been engaged in research and development in the field
of tire materials at Bridgestone's Tire Material Development
Department;

I am currently in charge of the subject matter disclosed and
claimed in the above-identified application; and

I am familiar with the Office Action of March 13, 2002, and understand that the Examiner has rejected claim 20 under 35 U.S.C. §102(e)/103(a) as being unpatentable over Blok et al (USP 5,736,611); and claims 16-19 and 21 under 35 U.S.C. §102(b) or (e)/103(a) as being unpatentable over EP 070143 or JP-A 9-151279.

Object of the present Declaration under 37 C.F.R. §1.132:

The object of the present Declaration is to conduct an additional experiment (example 25) to demonstrate that the compound A can *independently* exhibit an excellent effect of achieving high durability in the run-flat condition and that combined use of HTS and the compound A is not necessarily essential in order to achieve the excellent effect of the compound A.

In other words, the present Declaration proves that "addition of the compound A to a rubber composition and *use of the rubber composition for a reinforcing layer* (and optionally for bead fillers)", as defined by claim 20, independently achieves the unexpectedly excellent effect of the present invention, as compared with the prior art, regardless of the presence of sodium 1,6-hexamethylenedithiosulfate dihydrate (HTS) in the rubber composition.

Experiments:

Example 25 was carried out in the exactly same manner as that of example 1, except that the agent for preventing degradation*⁷, which corresponds to the compound A, was added. The results are summarized as follows.

Example 25

Natural rubber	30.0
Butadiene rubber* ¹	70.0
Carbon black* ²	60.0
Softener* ³	5.0
Zinc oxide	3.0
Stearic acid	1.0
Antioxidant* ⁴	2.0
Vulcanization accelerator* ⁵	3.5
Agent for preventing heat aging* ⁶	0.0
Agent for preventing degradation* ⁷	5.0
Sulfur	5.0
Temperature C (°C)	170
$\Delta E' *^8$ (MPa)	2.5

Applied portion

Reinforcing rubber	applied
Bead filler	not applied
Durability in the run-flat condition	131

The amounts above are all in parts by weight.

- *1: BR01 (a trade mark; manufactured by JSR Corporation)
- *2: FEF
- *3: Spindle oil
- *4: NOCRAC 6C (a trade mark; manufactured by OUCHI SHINKO KAGAKU KOGYO Co., Ltd.)
- *5: NOCCELOR NS (a trade mark; manufactured by OUCHI SHINKO KAGAKU KOGYO Co., Ltd.)
- *6: Sodium 1,6-hexamethylenedithiosulfate dihydrate
- *7: KAYARAD D310 (a trade mark; manufactured by NIPPON KAYAKU Co., Ltd.)
- *8: Range of the change in storage modulus in the temperature range of 170 to 200°C

Conclusion:

The unexpectedly excellent effect obtained by "addition of the compound A to a rubber composition and use of the rubber composition for a reinforcing layer and the like of a tire" is obvious, when the result of example 1 of Table 1 is compared with the result of the newly added example 25 of the present Declaration. The better result (154) of example 15 as compared with the result (132) of example 4 also proves the excellent effect of the compound A of the present invention.

In view of this, the applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claim 20 under 35

U.S.C. §102(e)/103(a) (Please note that claim 20 has been considerably amended, in full consideration of the Examiner's comments stated in the first full paragraph of page 5 of the Office Action dated March 13, 2002).

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

DATE: _____

西崎 友康

Tomoyasu Nishizaki